

MR3

COSHH essentials in motor vehicle repair



This information will help employers, the self-employed and franchisees to comply with the Control of Substances Hazardous to Health Regulations 2002 (COSHH), as amended, to control exposure to isocyanates and protect workers' health.

It is also useful for trade union and employee safety representatives.

This sheet describes good practice using a spray gun washer.

It covers the points you need to follow to reduce exposure to an adequate level.

It is important to follow all the points, or use equally effective measures.

'Isocyanate' means all isocyanate-based two-pack products. It may be described as 'prepolymer'. This still contains active isocyanate.

Main points

- Keep exposures as low as possible using all the controls in this sheet.
- Make sure the controls work.
- Use health surveillance for asthma and dermatitis. See sheets G402 and G403.
- Check that controls work using biological monitoring - see sheet G408.
- Also see sheet MR0.

Cleaning two-pack (2K) paint spray guns

Control approach 3 Containment

Hazard

- ✓ Isocyanate can cause asthma by breathing in paint mist.
- ✓ Control exposure to stop occupational asthma developing. Even short-term exposures can cause harm. If an individual does develop occupational asthma, avoid further exposure.
- ✓ Isocyanate can cause dermatitis by skin contact.
- ✓ There is no evidence for cancer from isocyanate in paints.

Access and premises

- ✓ Only allow access to trained staff who are under health surveillance.
- ✓ Keep everyone else away from all work with two-pack products.

Equipment

- ✓ Spray guns contain isocyanate residues. Clean them only in dedicated enclosed and extracted gun washing equipment.
- ✓ If this is not possible, use air-fed breathing apparatus for spraying washings in the extracted booth or room with the extraction turned on. Avoid spraying directly at filters.

Caution: Never spray solvent washings in the open workshop or the mixing room.

Personal protective equipment (PPE)

- ✓ Respiratory protective equipment (RPE) is not normally needed.
- ✓ Provide chemical resistant gloves, eg nitrile. Single-use gloves are preferred.
- ✓ Throw away single-use gloves every time they are taken off.
- ✓ Skin creams are important for skin protection and help in washing contamination from the skin. After work creams help to replace skin oils.
- ✓ Where you have to use a strong hand cleaner, remind workers to wash off residues with soap and water.

Caution: 'Barrier creams' or 'liquid gloves' do not provide a full barrier. Never use thinners to clean skin.

Maintenance, examination and testing

- ✓ Keep equipment in effective and efficient working order - follow instructions in maintenance manuals.
- ✓ If the equipment is faulty, stop work until it is repaired.
- ✓ At least once a week, check the seals for signs of damage.
- ✓ You need to know the manufacturer's specifications to know if the equipment is working properly.
- ✓ If this information isn't available, hire a competent ventilation engineer to determine the performance needed for effective control.
- ✓ Keep this information, with records of tests and checks, in your testing logbook.
- ✓ Get a competent ventilation engineer to examine the system thoroughly and test its performance at least once every 14 months. See the HSE publication HSG54 - see 'Further information'.
- ✓ Use air biological monitoring to detect personal exposure - see sheet G408.
- ✓ Keep records of all examinations and tests for at least five years.

Health surveillance

- ✓ Use high-level health surveillance for asthma - see sheet G402. There is a chance of asthma developing when using isocyanates, even with good controls in place.
- ✓ Use health surveillance for dermatitis - see sheet G403.
- ✓ Consult an occupational health professional - see 'Useful links'.

Cleaning and housekeeping

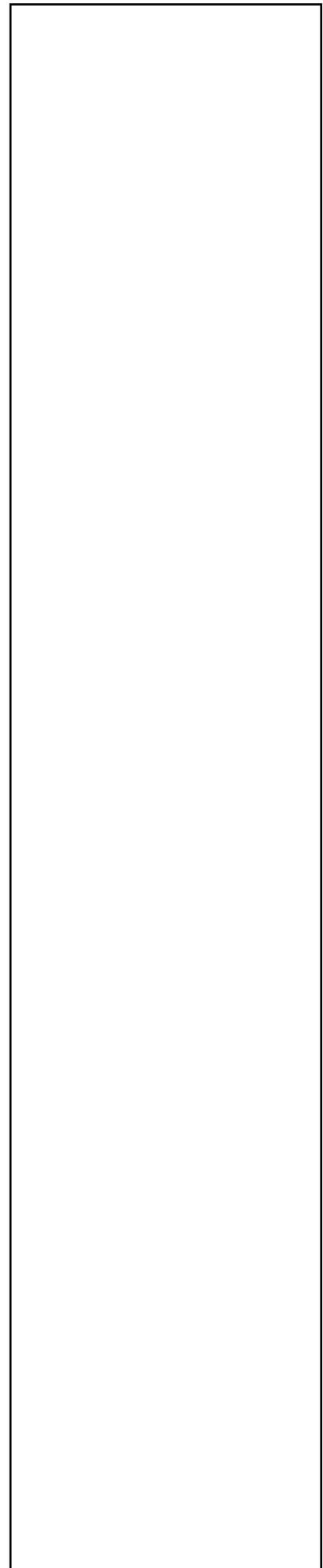
- ✓ Keep the washer and surrounding areas clean.
- ✓ Clean general workrooms once a week.
- ✓ Deal with spills immediately - absorb liquid spills with granules and decontaminate. Provide RPE for cleaning up larger spills.
- ✓ Dispose of solvent wastes through a hazardous waste disposal contractor.

Decontamination of isocyanate

- ✓ Ask your product supplier or read the safety data sheet. You can use a solution of sodium carbonate (washing soda) in water, 50g per litre. Add to the isocyanate and leave for several days to decontaminate.

Training and supervision

- ✓ Working in the right way and using the controls correctly is important for controlling exposure. Train and supervise workers. See sheet MR0.
- ✓ Tell your workers:
 - which two-pack paints and products contain isocyanates; and
 - that these can cause asthma and dermatitis, and the signs to watch out for.
- ✓ Provide health and safety training. Include supervisors and managers. Ask your trade association, local college or paint supplier for advice on training providers.



Further information

- Safety in motor vehicle repair: Working with 2-pack isocyanate paints Leaflet INDG388 HSE Books 2003 (single copy free or priced packs of 10 ISBN 0 7176 2756 X) Web version: www.hse.gov.uk/pubns/indg388.pdf
- Preventing asthma at work. How to control respiratory sensitisers L55 HSE Books 1994 ISBN 0 7176 0661 9
- *Maintenance, examination and testing of local exhaust ventilation* HSG54 (Second edition) HSE Books 1998 ISBN 0 7176 1485 9
- *Preventing dermatitis at work: Advice for employers and employees* Leaflet INDG233 HSE Books 1996 (single copy free or priced packs of 15 ISBN 0 7176 1246 5)
- For environmental guidelines see sheet MR0

Useful links

- Your trade association may advise on health and safety consultants and training providers.
- HSE priced and free publications are available from HSE Books Tel: 01787 881165 Website: www.hsebooks.co.uk.
- For information about health and safety ring HSE's Infoline Tel: 0845 345 0055 Textphone: 0845 408 9577 e-mail: hse.infoline@natbrit.com.
- Contact the British Occupational Hygiene Society (BOHS) on 01332 298101 or at www.bohs.org for lists of qualified hygienists who can help you.
- Look in the Yellow Pages under 'Health and safety consultants' and 'Health authorities and services' for 'occupational health'.
- Also see www.nhsplus.nhs.uk.

Employee checklist

- Keep unprotected people away while you are using two-pack products.
- Never spray gun washings in the mixing room or the open workshop. If you must spray washings, use the spray booth or room and RPE for this task.
- Decontaminate spills immediately, then clear them up as soon as possible.
- Look for signs of leaks, wear and damage.
- If you find any problems, tell your supervisor. Don't just carry on working.
- Co-operate with health surveillance.
- Use, maintain and store your PPE in accordance with instructions.
- Throw away single-use gloves every time you take them off.
- Wash your hands before eating, drinking, smoking and using the lavatory.
- Never use solvents to clean your skin.
- Use skin creams provided as instructed.
- Provide a urine sample to check you are not breathing in isocyanates. The sample won't be tested for anything else.

This guidance is issued by the Health and Safety Executive. Following the guidance is not compulsory and you are free to take other action. But if you do follow the guidance you will normally be doing enough to comply with the law. Health and safety inspectors seek to secure compliance with the law and may refer to this guidance as illustrating good practice.